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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/422,154	10/21/1999	CLOIS E. POWELL	303/1/151	5181

7590 10/29/2003  
ERIC B. MEYERTONS  
CONLEY, ROSE & TAYON, P.C.  
P.O. Box 398  
Austin, TX 78767-0398

EXAMINER

WYROZEBSKI LEE, KATARZYNA I

ART UNIT PAPER NUMBER

1714

DATE MAILED: 10/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

### Office Action Summary

Application No.

09/422,154

Applicant(s)

POWELL ET AL.

Examiner

Katarzyna Wyrozebski Lee

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,4-10,12,13,15-20,31-33,35-41,45-59,63-84,88-97 and 112-117 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,4-10,12,13,15-20,31-33,35-41,45-59,63-72,83,84,88 and 112-117 is/are allowed.
- 6) ☒ Claim(s) 73,75-77 and 89-91 is/are rejected.
- 7) ☒ Claim(s) 74, 78-82, 92-97 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

In view of applicants last response, the examiner acknowledges that claims 1, 4-10, 12, 13, 15-20, 31-33, 35-41, 45-59, 63-84, 88-97, 112-117 are pending.

In view of applicant's arguments, the rejection over the prior art of MARDIS (EP 798,267) and ROSS (US 6,380,295) are overcome since these two references do not teach the polyalkoxylated ester quats of the ammonium compounds. The prior art of GONZALEZ (WO 97/30950) is still applicable against claims 73, 75-77, 89-91 as these claims are in product by process form, wherein patentable weight is given to the product. The rejections are hereby restated.

***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 73, 75-77, 89-91 are rejected under 35 U.S.C. 102(b) as being anticipated by GONZALEZ (WO 97/30950).

The example 2 (page 12) of the prior art of Gonzalez discloses intercalation process of smectite clay with diester quaternary ammonium compound.

Dimethyl dihydrogenated tallow ammonium chloride solution was added to aqueous slurry of montmorillonite clay, heated at a pH of 8.8-8.6, temperature of 140°C and reacted for

about 45 minutes. Montmorillonite clay intercalated with dimethyl dihydrogenated tallow ammonium compound was obtained.

Intercalated clay (Abstract) is utilized in the thermoplastic compositions, in particular polystyrene (page 7, line 27-28).

In the light of the above disclosure, the prior art of GONZALES anticipates requirement of claims rejected above.

***Allowable Subject Matter***

3. Claims 1, 4-10, 12, 13, 15-20, 31-33, 35-41, 45-59, 63-72, 83, 84, 88, 112-117 are allowed. The prior art of record does not teach polyalkoxylated ammonium ester quats. The closest prior art found during updated search, which is US 5,429,999 to NAE teaches alkoxylated ammonium compounds, however the polyalkoxylated compounds of NAE are not ester quats. The prior art of NAE also does not teach utilizing mixtures of polyalkoxylated ammonium ester quats. The prior art of record of MADRIS and ROSS also does not disclose polyalkoxylated ammonium ester quats.

4. Claims 74, 78-82, 92-97 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The above claims are dependent on rejected claims 73, 75-77, 89-91, where the ammonium compound is based on fatty acid.

In the response filed on August 8, 2003 the applicants have argued that the prior art of GONZALES as applied against present claims does not teach the process in which the ammonium compound of the present invention was obtained.

The present claims that are rejected by the prior art of GONZALES are in product by process format wherein the patentable weight is given to the product. In addition, the prior art of GONZALES when making intercalating agent by processes well know in the art, as it is stated in the prior art of GONZALES, result is still a fatty acid containing ammonium cation that satisfies the rejected claims.

Applicant's arguments with respect to the prior art of MARDIS and ROSS are considered moot due to discontinuation of this prior art against present claims.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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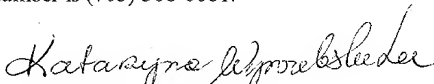
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

In December 2003, US Patent Office will be changing its location and as a result phone numbers will change. The new phone number for the examiner of record will be 571-272-1127.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski Lee whose telephone number is (703) 306-5875. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Katarzyna Wyrozebski Lee  
Primary Examiner  
Art Unit 1714

October 23, 2003